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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TOSHIAKI OKABE, RYOUJI TAGUCHI, YOICHI HIROSE, and  
SATOSHI NOJIRI

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Appeal 2009-007814  
Application 09/725,765  
Technology Center 2100

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Decided: February 22, 2010

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*Before* JAY P. LUCAS, ST. JOHN COURTENAY, III, and DEBRA K.  
STEPHENS, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) (2002) from a final rejection of claims 1-5 and 7-14. Claim 6 has been cancelled. We have jurisdiction under 35 U.S.C. § 6(b) (2008). Appellants waived their original request for an oral hearing.

We AFFIRM.

*Introduction*

According to Appellants, the invention is an integrated document management system and method configured for efficient document integrated management through independently managing linkage and document information on various documents stored in databases managed by various applications (Spec. 1, ¶ 1). This, according to Appellants, performs a search for and extraction of a document in response to a client's designated document set, using document information and linkage information (Abst.). Thus, the system and method manage plural documents linked to each other but stored independently in databases under control of different applications (Spec. 3, ¶ 3).

STATEMENT OF THE CASE

*Exemplary Claim*

Claim 1 is an exemplary claim and is reproduced below:

1. A document integrated management apparatus which performs integrated management on plural documents stored in plural databases managed by controllers unique to the databases, respectively, comprising:

a linkage information management unit that stores and manages linkage information among documents stored in the plural databases or document sets each having one or more documents as documents related to each other by supporting one or more of a plurality of processes, the linkage information including at least one identifier of a document set; and

a document information management unit that stores and manages document information on the document sets each having one or more documents as documents related to each other by supporting one or more of a plurality of processes, the documents being stored in the plural databases, the document information including at least one identifier of a document set;

wherein the document information includes a history identifier identifying an original and update or revision of a document or document set and a status identifier identifying a process step within one of the plurality of processes,

wherein the linkage information and the document information are linked to each other when the identifier of document set included in the linkage information corresponds with the identifier of document set included in the document information and the linkage information includes links to the original and the update or revised document or document set based on the history identifier and based on the status identifier that identifies a process step within one of the plurality of processes.

*Prior Art*

Yanaka	5,946,689	Aug. 31, 1999
Egendorf	2003/0177111 A1	Sep. 18, 2003
Bengston	6,728,947 B1	Apr. 27, 2004

*Rejections*

Claims 1-5 and 7-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Egendorf, Yanaka and Bengston. Claim 6 was previously cancelled (App. Br. 3).

GROUPING OF CLAIMS

Appellants argue claims 1-5 and 7-14 as a group (App. Br. 18). We therefore treat claims 2-5 and 7-14 as standing or falling with representative claim 1.

We accept Appellants' grouping of the claims. *See* 37 C.F.R. § 41.37(c)(1)(vii).

*35 U.S.C. § 103(a): claims 1-5, and 7-14*

*ISSUE 1*

Appellants assert their invention is not obvious over Egendorf, Yanaka and Bengston because Yanaka does not teach or suggest document information that includes a history identifier identifying an original and update or revision of a document or document set (App. Br. 14, §1). Additionally, Appellants argue their invention requires “plural documents stored in plural databases” (Reply Br. 1). Appellants contend that both the original and updated documents must be stored since the link is to the original *and* the update documents – a link cannot be valid for a nonexistent document (Reply Br. 1-2). Therefore, Appellants argue, Yanaka’s teaching does not provide links to the original and update or revised documents or sets (Reply Br. 2).

The Examiner finds Yanaka teaches an update serial number is updated and stored in an update serial number history, and that is associated with data each time the data is updated (Ans. 17-18). The Examiner further finds that Yanaka teaches comparing the content of the update serial number history with the received data and determining if a difference between the received data and the database data exists (Ans. 18). Thus, the Examiner finds since the updated data identifier points to the updated data each time the data is updated to form a new data identifier both the recited history identifier and linkage information are taught by Yanaka (*id.*). The Examiner contends that since each time the data is updated, the update serial number associated with the data is stored, the recited linkage information (which does not require storing) is taught (*id.*).

*Issue 1:* Have Appellants shown the Examiner erred in finding Yanaka teaches “the document information includes a history identifier identifying an original and update or revision of a document or document set” and “linkage information includes links to the original and the update or revised document or document set based on the history identifier?”

## FINDINGS OF FACT (FF)

### *Yanaka Reference*

(1) Yanaka teaches a method and system for detecting the presence or absence of contention between data to enable respective databases to update independently of each other (col. 1, ll. 13-15). One database serves as an original database that has primary replica data and the other databases are formed by replicating the original database to form secondary replica data (Abst.; col. 1, ll. 13-22). Updates or deletions performed in a primary

database are reflected to secondary databases (col. 1, ll. 21-24). An update contention may occur if data that corresponds to certain data updated in the primary database, is also updated or deleted in one of the secondary databases (col. 1, ll. 25-28). Data contentions are identified and data susceptible to data contention is provided with update serial numbers to allow for easier identification (*id.*).

(2) The system includes a data receiver unit that receives updated data and reference related data transferred from the first computer 100; a received data storing region for temporarily storing data transferred thereto on a main storage as received data; and an update contention determination unit 192 that determines whether an update contention exists (col. 3, ll. 45-58; FIGs. 1, 9 and 11A-B). If the target data does not already exist in the database, the data is updated (col. 7, ll. 24-27; FIG. 9). If the a contention is determined, the update contention determination unit handles the contention through use of an update serial number and an update serial number history for each data (col. 7, ll. 30-col. 8, ll. 43, FIGs. 9, 11A and 11B).

(3) An update serial number is produced for each data (col. 2, ll. 3-4; FIG. 2, elements 207-n and 208-n). The update serial number defines an update unit of a database and includes an identifier that identifies a database system which has updated (or produced) its data and the number of times updates are performed on the data (col. 2, ll. 4-7; FIG. 2, element 206). The update serial number is added to an update serial number history (col. 2, ll. 7-8). The update serial number history accumulates the update serial number each time data is updated (col. 2, ll. 9-10).

## PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

“In the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.” *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003) (citation omitted). “[T]he words of a claim ‘are generally given their ordinary and customary meaning.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citations omitted). The “ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313 (citations omitted).

## ANALYSIS

Appellants argue Yanaka only determines whether one set of data is more recent than the other and thus, this is not a history identifier (App. Br. 16). However, we find even an indicator showing the number of the revision



is a history identifier. Therefore, we find both the original and update or revision of a document or document set have a history identifier.

Additionally, during the contention determination step, the received data and the target data exist – the received data in the received data storing region 194 and the target data in the database 180 (FF 2). As shown in FIGs. 11A and 11B, all the data is transferred to the received data storing region 194 (FIG. 11A, elements 1101-n; FIG. 11B, elements 1101-n).

Appellants’ argument that the original and update or revised documents or sets are required to be stored for a link to exist is not persuasive. Appellants did not defined “link” in their Specification. Thus, we broadly but reasonably construe “link” according to its ordinary and customary meaning<sup>1</sup>. A link does not require storage of data; therefore, we find Appellants argue limitations that are not recited in the claims.

Both the original and update or revised documents or sets are present during the contention determination step of Yanaka (FF 2; FIG. 10). For the update contention determination unit to determine if a contention exists, the update contention determination unit must access both the data in the received data storing region and the database and compare their history identifiers. Thus, we find Yanaka teaches linkage information that includes links to the original and the update or revised document based on the history identifier.

Accordingly, since the received data and the target data exist at the same time, and both have update serial number history and update serial

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<sup>1</sup> “Link” is defined as an identifier attached to an element in a system in order to indicate or permit connection with other similarly identified elements. MERRIAM WEBSTER’S COLLEGIATE DICTIONARY 676-77 (10<sup>th</sup> ed. 2000).

numbers, we find Yanaka teaches the document includes “a history identifier identifying an original and update or revision of a document or document set” and “linkage information includes links to the original and the update or revised document or document set based on the history identifiers.”

## ISSUE 2

Appellants next assert Bengston does not teach the documents support one or more processors or a status ID (App. Br. 18, §4). Appellants argue Bengston teaches an automated system for performing workflow – art non-analogous to Yanaka and Egendorf (*id.*). Moreover, Appellants argue the combination fails to teach or suggest providing linkage information that links to the original and the update or revised document or document set based on a *status* identifier that identifies a process step (*id.*).

The Examiner finds that Bengston teaches a workflow distributing apparatus and method (Ans. 20). The Examiner further finds Bengston transfers workflow data that includes a workflow file and a process data file (*id.*). The Examiner additionally finds the workflow file includes an indication of the process step sequence to be executed and specifies the status information and the location of process data files (*id.*). Thus, the Examiner finds Bengston teaches a status identifier that identifies a process step within one process (*id.*). Finally, the Examiner concludes it would have been obvious to combine Bengston’s workflow process steps into the system of Egendorf to provide all the documents needed for a process step and to notify users of the progression of the process steps (Ans. 20-21).

*Issue 2:* Have Appellants shown the Examiner erred in finding Bengston teaches that the documents support one or more processes and a

status identifier identifying a process step within one of the plurality of processes?

#### FURTHER FINDINGS OF FACT (FF)

We further find as follows:

##### *Bengston Reference*

(4) Bengston teaches a method and system for “automatically executing process steps by processing devices ...using a workflow file to specify the process steps.” (Abst.).

(5) “Many workflows require a plurality of process steps to be executed by a plurality of performers (e.g., machines and/or people) in order to realize an objective” (col. 1, ll. 11-30). Considerable effort is expended in an attempt to control and streamline these workflows (col. 1, ll. 48-49).

(6) A communication channel could convey information such as status information from processing devices back to an observing device and/or any other device to observe the progress of the workflow (col. 5, ll. 29-32). For example, workflow progress including the progression of the sequence of the process steps may be communicated through highlighting of portions of graphical representation (col. 5, ll. 34-36). Status information may also be communicated and may include reports or normal and erroneous process steps completion or any other desired information (col. 5, ll. 36-39).

#### PRINCIPLES OF LAW

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re*

*Keller*, 642 F. 2d 413, 425 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F. 2d 1091, 1096 (Fed. Cir. 1986).

## ANALYSIS

Appellants' arguments focus on the individual differences between the limitations of claim 1 and the Egendorf and Bengston references. It is apparent, however, from the Examiner's line of reasoning in the Final Rejection, that the basis for the obviousness rejection is the combination of Egendorf, Yanaka, and Bengston.

In other words, while Appellants contend that Bengston lacks a teaching of links to the original and the update or revised document based on the history identifier *and* based on the status identifier that identifies a process step within one of the plurality of processes, we find the Examiner relied on Yanaka as teaching the links and the links based on the history identifier and relied on Bengston as teaching a status identifier that identifies a process step within one of the plurality of processes.<sup>2</sup> As set forth above in *ISSUE 1 supra.*, we find Yanaka teaches the links and the history identifiers.

We also find Bengston teaches an identifier – highlighting of portions of graphical representation – is provided to indicate the process step within the plurality of processes (FF 6). Thus, we find Bengston teaches a status identifier that identifies a process step within one of the plurality of processes.

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<sup>2</sup> See *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.).

*ISSUE 3*

Appellants assert their invention is not obvious over Egendorf, Yanaka and Bengston because one of ordinary skill in the art would not have been motivated to combine the cited references (App. Br. 17). Specifically, Appellants argue Egendorf teaches a category-based hierarchy specifically designed to allow information to be located in different databases (*id.*). Thus, Appellants contend no benefits exist in displaying updates of data in one database to another “to ensure the latest contents were provided to all databases” and such a feature is “outside the conceivable purpose of the system...and/or would have changed the basic principle of operation” (App. Br. 17-18, §3). Appellants additionally argue Yanaka “teaches away” from the claimed invention by teaching that retaining older information is undesirable (App. Br. 16).

The Examiner finds incorporating Yanaka’s history identifier into the system of Egendorf would have been desirable at the time of the invention to permit displaying updates of data to other databases to ensure all databases had the latest updates (Ans. 21). Additionally, the Examiner finds Yanaka taught update information in a database system was needed so a user could detect the presence of contention and enable updated data to be provided (*id.*). Thus, the Examiner finds including this feature into the system of Egendorf would have been beneficial to notify the system that updates exist for a document in a database (Ans. 21-22).

*Issue 3a:* Have Appellants shown the Examiner erred in finding one of ordinary skill in the art would have been motivated to combine the

technique of Yanaka into the system of Egendorf at the time of Appellants' invention?

*Issue 3b:* Have Appellants shown the Examiner erred in finding Egendorf, Yanaka, and Bengston are analogous art?

*Issue 3c:* Have Appellants shown the Examiner erred in finding Yanaka does not teach away from Bengston?

### FURTHER FINDINGS OF FACT (FF)

We further find as follows:

#### *Egendorf Reference*

(7) Egendorf teaches a method and system for searching for information on a computer information network (Abst.).

(8) "Current technologies for search-and-retrieval all suffer from problems which cause retrievals to contain irrelevant, non-existent, and out-of-date references, and additionally to contain so many references that the retrievals overwhelm the capacity of a person to find the particular information sought" ([0008]).

#### *Yanaka Reference*

(9) The former prior art technique has a problem involved in its determination of an update contention based on a comparison of the values of the update counters provided in respective data. Specifically, when data is replicated independently among a plurality of systems, a contention of data cannot be detected if the number of times of updates is different in these systems. Also, while the latter prior art technique discloses the transfer of update information in units of transactions from an original database system, it does not describe any specific method of determining an update contention. In addition, the latter prior art technique implies problems in that data in a database in the destination database system does not have the latest contents until the reflection of the update information is completed in the destination

database, and that it takes a long time to complete the reflection of the update information.

(col. 1, ll. 47-62).

## PRINCIPLES OF LAW

[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient.... In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him *capable* of combining the prior art references.

*DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006).

Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference is still reasonably pertinent to the particular problem with which the inventor is involved. *In re Deminski*, 796 F.2d 436, 442 (Fed. Cir. 1986); *In re Wood*, 599 F.2d 1032, 1036 (CCPA 1979); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004).

“‘A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.’” *In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006) (citation omitted).

## ANALYSIS

We find Egendorf and Yanaka are from the same field of endeavor, because both references address systems with multiple data sources and data that may be out-of-date (or in several versions where that is not desired). (FF 8 and FF 9).

Bengston addresses displaying the particular step being executed or having been executed in a process (FF 6). Thus, this reference is pertinent to the particular problem with which the inventor is involved in both Egendorf and Yanaka – providing links to the original and update or revised document or document set based on the step being executed in the process. All three of these references are concerned with the same issue Appellants seek to address. Accordingly, we find Bengston, Egendorf, and Yanaka are analogous art.

We agree with the Examiner's finding that one of ordinary skill in the art would have been motivated to include Yanaka's history identifier to identify an original and update or revision of a document or document set to ensure the latest contents were provided to all the databases. Egendorf addresses providing the most up-to-date information and this technique taught by Yanaka addresses that issue. Moreover, we find one of ordinary skill in the art would have been motivated to include Bengston's technique to indicate the process step within one of the processes. Additionally, we find an ordinarily skilled artisan would have possessed knowledge of this as Bengston evidences it is a well-known technique.

We further find one of ordinary skill, upon reading the Yanaka reference, would not have been discouraged from including the Yanaka



technique into the system of Egendorf, or led in a direction divergent from the path taken by Appellants. Moreover, Appellants have not provided any evidence or specific arguments to support the allegation that Yanaka “teaches away” from the claimed invention. We do not see where Yanaka teaches away from the claimed invention or leads a skilled artisan in a divergent direction.

Thus, we find Egendorf, Yanaka, and Bengston are analogous art; one of ordinary skill in the art would have been motivated to combine the techniques of Yanaka and Bengston into Egendorf; and Yanaka does not “teach away” from the claimed invention.

## CONCLUSION

Based on the findings of fact and analysis above, Appellants have not shown the Examiner erred in finding Yanaka teaches “the document information includes a history identifier identifying an original and update or revision of a document or document set” and “linkage information includes links to the original and the update or revised document or document set based on the history identifier. Further, Appellants have not shown the Examiner erred in finding Bengston teaches that the documents support one or more processes and a status identifier identifying a process step within one of the plurality of processes. Appellants have additionally not shown the Examiner erred in finding (a) one of ordinary skill in the art would have been motivated to combine the technique of Yanaka into the system of Egendorf at the time of Appellants’ invention, (b) Egendorf, Yanaka, and Bengston are analogous art, and (c) Yanaka does not teach away from Bengston.

Accordingly, Appellants have not shown the Examiner erred in concluding that claim 1 and claims 8, 9, 13, and 14 which have commensurate language, were obvious under 35 U.S.C. §103(a) over Egendorf, Yanaka and Bengston. Since claims 2-5, 7 and 10-12 depend from the independent claims 1 and 9, respectively and claims 2-5, 7 and 10-12 were not argued separately, claims 2-5, 7 and 10-12 are found to be obvious over Egendorf, Yanaka and Bengston.

Accordingly, Appellants have not shown the Examiner erred in rejecting claims 1-5 and 7-14 under 35 U.S.C. § 103(a) for obviousness over Egendorf, Yanaka and Bengston.

#### DECISION

The Examiner's rejection of claims 1-5 and 7-14 under 35 U.S.C. § 103(a) as being obvious over Egendorf, Yanaka and Bengston is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

#### AFFIRMED

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